

TECHNICAL DETAILS

METRIC

INCH



OPERATING CONDITIONS

MAXIMUM SPEED
 TEMPERATURE RANGE
 MAXIMUM PRESSURE
 SURFACE ROUGHNESS
 DYNAMIC SEALING FACE $\varnothing d_1$
 STATIC SEALING FACE $\varnothing d_1 \varnothing d_2$
 STATIC HOUSING FACES $\varnothing d_3 L_1 L_2$

0.5 m/sec
-30°C + 100°C
350 bar

1.5 ft/sec
-22°F + 212°F
6000 p.s.i.

| μmRa | μmRt |
|------------------|-----------------|
| 0.1 ↔ 0.4 | 4 max |
| 1.6 max | 10 max |
| 3.2 max | 16 max |

| μinCLA | μinRMS |
|-------------------|-------------------|
| 4 ↔ 16 | 5 ↔ 18 |
| 63 max | 70 max |
| 125 max | 140 max |

CHAMFERS & RADII

GROOVE SECTION $\leq S$ mm
 MIN CHAMFER C mm
 MAX FILLET RAD r_1 mm
 MAX FILLET RAD r_2 mm
 GROOVE SECTION $\leq S$ in
 MIN CHAMFER C in
 MAX FILLET RAD r_1 in
 MAX FILLET RAD r_2 in

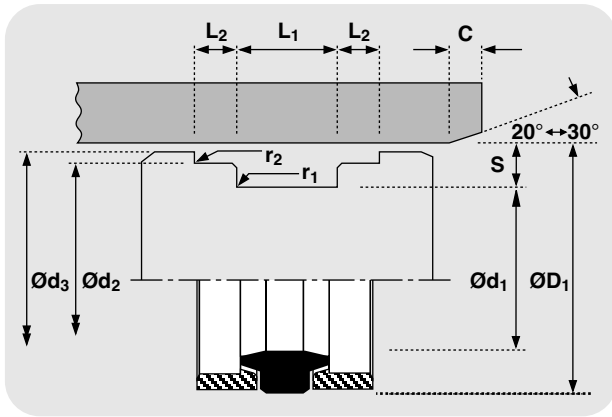
| | | |
|-------------|-------------|-------------|
| 3.75 | 5.00 | 6.50 |
| 2.00 | 2.50 | 4.00 |
| 0.40 | 0.40 | 0.40 |
| 0.20 | 0.20 | 0.20 |

| | | |
|--------------|--------------|--------------|
| 0.156 | 0.187 | 0.250 |
| 0.078 | 0.093 | 0.125 |
| 0.016 | 0.016 | 0.016 |
| 0.008 | 0.008 | 0.008 |

TOLERANCES

mm
in

| $\varnothing d_1$ | $\varnothing d_1$ | $\varnothing d_2$ | $\varnothing d_3$ | L_1 | L_2 |
|-------------------|-------------------|-------------------|-------------------|----------------------|-----------------|
| H10 | h9 | h9 | h11 | +0.4 +0.13 | 0 -0.13 |
| H10 | h9 | h9 | h11 | +0.015 +0.005 | 0 -0.005 |



DESIGN

Ideal for light to medium duty one piece piston applications, the Hallite 77 seal is a simple, effective and economical design. Its compact dimensions enable the designer to keep the length of the piston to a minimum.

It is an assembly of a continuous rubber seal and two scarf cut bearings.

The nitrile rubber seal is designed to be pre-loaded by the housing to ensure an effective seal at low pressure. The outward thrust of the rubber seal on the bearings as it reacts to increasing pressure prevents any extrusion damage in the sealing area.

The pair of polyacetal bearings are proportioned to support the piston and its side load.

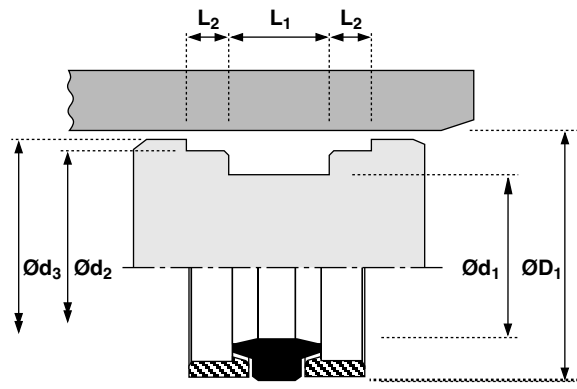
FEATURES

- COMPACT DESIGN
- EASY ASSEMBLY
- LOW WEAR
- LONG LIFE

Piston seals

77

metric



| ØD ₁ | TOL H10 | Ød ₁ | TOL h9 | Ød ₂ | TOL h9 | Ød ₃ | TOL h11 | L ₁ + 0.4 + 0.13 | L ₂ 0 - 0.13 | PART No. |
|-----------------|----------------|-----------------|----------------|-----------------|------------------|-----------------|----------------|--------------------------------|----------------------------|-------------|
| 25 | +0.08 +0.00 | 17.5 | +0.00 -0.04 | 21.3 | +0.000 -0.052 | 24.0 | +0.00 -0.13 | 8.50 | 3.25 | 6111410 |
| 40 | +0.10 +0.00 | 30 | +0.00 -0.05 | 35.5 | +0.000 -0.062 | 39.0 | +0.00 -0.16 | 11.00 | 4.00 | 6111210 |
| 50 | +0.10 +0.00 | 40 | +0.00 -0.06 | 45.5 | +0.000 -0.062 | 49.0 | +0.00 -0.16 | 11.00 | 4.00 | 2326110 |
| 60 | +0.10 +0.00 | 48 | +0.00 -0.06 | 55.9 | +0.000 -0.062 | 59.2 | +0.00 -0.16 | 20.50 | 4.30 | 2326210 |
| 63 | +0.12 +0.00 | 53 | +0.00 -0.07 | 58.5 | +0.000 -0.074 | 61.5 | +0.00 -0.19 | 11.00 | 4.00 | 2325810 |
| 80 | +0.12 +0.00 | 70 | +0.00 -0.07 | 75.5 | +0.000 -0.074 | 78.5 | +0.00 -0.19 | 11.00 | 4.00 | 2325710 |
| 100 | +0.14 +0.00 | 87 | +0.00 -0.09 | 93.8 | +0.000 -0.087 | 98.5 | +0.00 -0.22 | 14.00 | 6.00 | 2326010 |
| 125 | +0.16 +0.00 | 112 | +0.00 -0.09 | 118.8 | +0.000 -0.087 | 123.5 | +0.00 -0.25 | 14.00 | 6.00 | 2325910 |

inch

| ØD ₁ | TOL H10 | Ød ₁ | TOL h9 | Ød ₂ | TOL h9 | Ød ₃ | TOL h11 | L ₁ + 0.015 + 0.005 | L ₂ 0 - 0.005 | PART No. |
|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------------------------|-----------------------------|-------------|
| 1.250 | +0.004 +0.000 | 0.937 | +0.000 -0.002 | 1.097 | +0.000 -0.002 | 1.187 | +0.000 -0.005 | 0.343 | 0.125 | 6567790 |
| 2.375 | +0.005 +0.000 | 2.000 | +0.000 -0.003 | 2.000 | +0.000 -0.003 | 2.312 | +0.00 -0.005 | 0.437 | 0.150 | 6918060 |
| 2.500 | +0.005 +0.000 | 2.125 | +0.000 -0.003 | 2.325 | +0.000 -0.003 | 2.437 | +0.000 -0.005 | 0.437 | 0.150 | 2360210 |
| 3.250 | +0.005 +0.000 | 2.875 | +0.000 -0.003 | 3.270 | +0.000 -0.004 | 3.437 | +0.000 -0.005 | 0.437 | 0.150 | 2360310 |